

IN THE SPECIFICATION

At page 3, paragraph [0010]:

The present invention further includes a method of lowering the melt flow rate (MFR) response of a high melt flow rate polymer producing metallocene catalyst. The method includes contacting the high melt flow rate polymer producing metallocene catalyst with a sufficient quantity of α,ω -diene monomer such that when the catalyst is contacted with polymerizable reactants, such as propylene monomers, in presence of the α,ω diene under suitable polymerization conditions, the resulting polymer has an MFR rate in the range of 0.1 to 19 and, optionally an 11% or greater increase in molecular weight distribution. Suitable polymerization conditions may include hydrogen and/or other polymerizable reactants, such as ethylene. Desirably, the metallocene catalyst is a zirconium metallocene catalyst.

At page 4, paragraph [0016]:

As used herein, the term "high melt flow rate polymer producing catalyst" means a catalyst, desirably a metallocene catalyst, capable of producing polypropylene and particularly homo-polypropylene having a melt flow rate (MFR) greater than 19 under, for example, the following polymerization conditions. Charging a A 2-liter autoclave reactor is charged with propylene (1 L), triethylaluminum (1.0 mL of 1 M solution in hexane) and hydrogen (0 - 10 mmol). Then the reactor is heated Heating the reactor to 70° C and injecting the catalyst is injected into the reactor with 200 mL of propylene. The polymerization reaction is allowed to run for one hour while maintaining the reactor temperature at 70° C. After one hour the reactor is cooled to 25° C and vented. The polymer product is collected and the MFR measured in accordance with ASTM D-1238 at 230 °C and 2.16 kg load.: